

TABLE 3. SUMMARY OF THE STOMACH CONTENTS OF 5 SPECIMENS OF *A. CRISTATUS*. VOLUMES MEASURED IN CUBIC CENTIMETRES.

Prey Item	Number	Volume	% of Total Volume	Frequency
Ants	21	0.53	16.2	80
Wasps and Bees	2	0.09	2.8	20
Grasshoppers	4	1.57	48.0	80
Beetles	1	0.20	6.1	20
Bugs (Hemiptera)	1	0.03	0.9	20
Unidentified Insects	4	0.27	8.3	80
Lizards (<i>Ablepharus greyi</i>)	1	0.10	3.1	20
Floral plant materials	2	0.30	9.1	40
Vegetative plant materials	3	0.12	3.7	60
Debris, including sand		0.05	1.5	40
Nematodes	5	0.01	0.3	20
TOTALS	44	3.27	100.0	

TABLE 4. DATA ON REPRODUCTIVE STATUS OF SEVEN GRAVID FEMALE *A. SCUTULATUS*. EGG DIAMETERS AND SNOUT-VENT LENGTHS IN MILLIMETRES.

Specimen	Date of Collection	Clutch Size	Egg Diameter	Snout-Vent Length
ERP 10019	28 November 1966	5	Ovarian 4	102
ERP 10526	31 January 1967	7	Ovarian 8	98
ERP 10543	1 February 1967	8	Oviducal 17	96
ERP 13260	30 December 1967	10	Ovarian 4	100
ERP 13265	30 December 1967	5	Oviducal 16	93
ERP 13640	9 January 1968	6	Ovarian 8	95
Loveridge, 1938	January 1934	5	Oviducal 20	105

FIELD NOTES ON BIRDS BY THOMAS CARTER

Communicated by GILBERT P. WHITLEY, Australian Museum, Sydney

My old friend the veteran ornithologist, Tom Iredale, now in his 92nd. year, recently gave me some manuscripts among which were four pages of writing-pad paper bearing notes on Western Australian birds written by Thomas Carter in 1922. Some of the data in these notes were included in papers published by Carter in the *Ibis* and the *Emu*, but their full publication now will not be without value as a record of ornithological conditions half a century ago in habitats now radically altered. It has been thought best to retain Carter's wording and spelling of names as he gave them. Most of the scientific names are readily identifiable by present-day ornithologists but in any case can be interpreted from the R.A.O.U. and other current checklists.

Thomas Carter's life and writings are detailed in H. M. Whittell's *The Literature of Australian Birds*, 1954, pp. 119-121 and epitomised in Serventy and Whittell's *Birds of Western Australia*, 1948, pp. 36-37. A modern biography of Carter, by Freda Vines, including hitherto unknown information obtained from his son Christopher (born in Western Australia but now living in Worcester, England), has been published in the *Journal and Proceedings of the Royal Western Australian Historical Society*, 6 (7), 1968, pp. 7-21.

NOTES FROM SOUTH WEST AND MID-WEST AUSTRALIA, 1922
 January 3rd. Many recently fledged young of *Meliornis longirostris* and *Glycyphila fulvifrons* seen near Busselton.

January 24th. Saw a recently fledged *Gymnorhina dorsalis*, Busselton.

January 28th. Saw a recently fledged *Cracticus torquatus*, Busselton.

The adult ♂ flew straight at my face to within about three feet, screaming loudly at me.

February 5th. Saw a family party of *Malurus splendens* feeding on small insects, on a high road just outside Busselton township, half an hour after sundown (getting dark). This bird is much scarcer about Busselton and S. West generally, than in former years. Many people remarked this to me. I imagine it is result of too many cats.

February. Crows were numerous in the Broome Hill district, where, in former years it was a very rare thing to see any. Many farmers com-

plained of the great damage done to fruit now by both Crows and Magpies.

March 7th. Found a nest of *Ptilotis cratitia* containing two fresh eggs some miles east of Gnowangerup (35 m. S.E. of Broome Hill). The nest was about three feet from the ground in a small bush surrounded by fairly dense scrub, on a sandplain. It was beautifully made of much fine, and also some coarse grasses, strongly interwoven and mixed with much vegetable woolly seed material, so that it was compact and did not show daylight through. It measured three inches deep and two and a half inches across (outside measurement) and two inches depth of inside. All previous nests with eggs found by me, had been from mid-August to mid-October, but as a heavy thunderstorm had visited this district about March 1st, many small birds were breeding out of season, as Crested Bellbirds (*Oreoica cristata*) were breeding close to the Wattle cheeked Honey Eater's nest, and

March 5th. I got eggs of *Calamanthus carteri* at Gnowangerup, and on

March 13th. I found three eggs of *Smicrornis brevirostris* at Gnowangerup.

March 17 and following days. Obtained specimens of *Ptilotis leucotis* near Woolundra on goldfields railway, and saw others.

March 17. *Acanthogenys woolundra*, breeding at Woolundra.

March 17. *Ptilotis sonora*. Nest with two eggs in Bougainvillea bush on Bruce W. Leake's house near Woolundra.

March 17. *Smicrornis brevirostris* were also breeding in the vicinity and 2 young in down of *Zonifer tricolor* were seen there.

March 20. *Cracticus nigrogularis* Blk. throated Butcher birds were common about Woolundra.

March 20th. *Barnardius woolundra* was never heard calling "28" as does *semitorquatus* and there were hundreds round the homestead.

SHARK BAY AND DIRK HARTOG NOTES, 1922.

PERON

April 10th. Birds were generally scarce round Denham (Peron Peninsula) owing to dry season. I found my usual hunting grounds very bare, and over-run with sheep, goats, horses, cattle and camels.

April 16th. Shot two *Sphenostomata cristata* apparently breeding, Peron peninsula

April 18th. Saw Common Sandpiper (eastern) on beach

April 19th. Heard a *Calamanthus* first time on Peron, could not see it.

April 20th. Many *Calamanthus* heard in many places, but could not see or obtain any, although accompanied by a friend to help me. It appeared to be a sudden irruption of the birds.

May 1st. One *Calamanthus peroni* was obtained, a ♀, and confirms the subspecies. *Grallina picata*. A dead one was found in the school playground and brought to me.

April 19th. Shot a ♂ *Malurus cyanotus* (full plumaged White-winged blue wren) on Peron, and carefully examined it at once.

The white feathers met completely across the back. There was a bare tract between the shoulders, but the white feathers had to be lifted and parted, to show it.

April 20th. Shot a ♂ *Malurus cyanotus* changing to full plumage. The white feathers met completely across the back. I had a witness with me. Mr. Fountain, a pearl buyer.

DIRK HARTOG ISLAND

April 23rd to 30th. Saw many parties of *Malurus assimilis* but only two full plumaged males.

Malurus leucopterus. Only one full plumaged ♂ seen, and gun missed fire (An old, worn out 410 gun, lent me by Perth Museum!)

April 25th. *Diaphorillas carteri*. Had a glimpse of what I took to be one of these birds. Did not see any more, although I looked carefully every day in the thick scrub where I saw many in 1916. I fear that tame cats in a feral state, which abound both on the Island and Peron peninsula, are wiping out these birds, at anyrate near the homesteads. I saw many of these cats and shot several of them. These cats are more likely to get *Diaphorillas* than *Malurus leucopterus*, as the former birds are mostly on the ground and do not fly much, but *M. leucopterus* is exceptionally active.

To show how strange birds may occur on Dirk Hartog (and other islands) Mr. Lloyd, and others, told me that after the hurricane that visited Shark Bay in February, 1921, a flock of 20 Pink breasted Cockatoo also some White ones (*Cac. gymnopsis*) were seen there (Dirk Hartog Island) immediately after the blow, but did not stop long, excepting one Pink-bd. Cockatoo which was there on my recent visit. Probably hurt and unable to fly far. Mr. Lloyd also saw a Turtle Dove soon after the hurricane, some Warbling Grass-parroquets, and *Graucalus melanops*.

NOTES RESPECTING *SPHENURA LONGIROSTRIS* IN S. WEST AUSTRALIA, 1922

JANUARY: A settler who owns cattle running on the coast hills, told me that he has seen some of these birds, on different occasions within the last two years (*but not recently*), when he was riding out to look at his cattle, usually accompanied by a dog, which disturbed the birds from the scrub, and they could be plainly seen as they ran from one bush to another. Not in numbers, but one or two, occasionally. He particularly told me they were noticeable by running with *their tails erect*.

The above man's brother, who also has cattle running near there, told me that the last *Sphenura* he saw was in a patch of very dense scrub above some coastal cliffs, about two years ago (1920). He told me that he did not think there were any there now. This place is near where one of the last known specimens was shot, about sixteen years ago. The above two localities are about two miles apart, and I thoroughly searched both of them without seeing any of the birds in the three weeks I spent there.

Another cattle man, whose land joined that of my first informant, spoke to me of what he called "Noisy Jacks," birds that he had often seen both on his own and neighbour's land, on the coast hills. He described them as noisy chattering birds, that went in small parties in the scrub, and had white tips to their tails and *on their wings*. I thought they sounded like Babblers,* but I never saw any Babblers in that district.

I stayed with this man in February 1922, and was with him on his coastal land. We saw no "Noisy Jacks" which he said was very unusual, but we saw three birds, that I could not identify. They seemed to be *all* blackish in colour and about the size of a Swallow, but had short tails and rather long pointed wings. We flushed them from low thick scrub near the beach, and they flew strongly inland just above the top of scrub and then disappeared in it. They were very wild and we flushed them three times before I got a long shot at one. Next time only two rose from the scrub, and we eventually lost them. They were a puzzle. Once my companion when some distance from me, shouted to me to go to him. It seemed he had seen a curious bird creeping about under the scrub close to him. (He had a rifle, I the gun.) The bird was gone when I got there, but his description of it sounded like a *Sphenura*. Altogether, in six weeks time of hard work I systematically searched about twelve miles (long) of coastal scrubs without any result, often crawling on the ground *underneath* the scrub for long distances, watching, chirping, and listening (also swearing).

*The White-browed Babbler is now known to occur on the south coast, and the birds referred to here were obviously of that species.

I also interviewed the man* who shot the last specimens for Perth Museum, 16 or 17 years ago, who told me of the exact patch of scrub where he obtained them, and it seemed that it was one of the very places that I had selected as being likely for *Sphenura* to frequent, and that I had been there several times on my last trip (1922) and also when I was in that locality in 1919. I found this year that a good deal of the above scrub had been recently burnt off there. In 1916 I also revisited the coastal country where Milligan and Congrave obtained specimens of *Sphenura* and *Psophodes* in 1901, and where I had been in 1902, and seen *Sphenura*, as recorded in "The Emu," Vol. 3, p. 38. But on my visit there in 1916 I found that practically all the coastal scrubs for a distance of some miles, had been completely destroyed by bush fires, and in many places bare sand drift had taken the place of the former dense scrub, and it was difficult to locate the sites of formerly well-known patches of scrub where *Sphenura* and other rare birds had been seen. I do not say that the *Sphenura* is extinct, even in the above localities, but they are certainly much less numerous, and constricted to smaller areas of scrub. The area that has been searched, *systematically*, for this bird is really only small, as it is fifty miles from Cape Naturaliste to Cape Leeuwin (which has been visited the most), and it is one hundred miles from C. Leeuwin to Nornalup Inlet, of which stretch of coast very little is known, ornithologically.

(Sgd.) TOM CARTER

*This would be F. Lawson Whitlock.

THE IDENTITY OF *NIRMUS BRACTEATUS* NITZSCH (MALLOPHAGA: INSECTA)

By THERESA CLAY, British Museum (Natural History), London.

Nirmus bracteatus Nitzsch, 1866 (Phloptoridae) taken from *Dacelo gigantea* = *D. gigas* was listed under *Nirmus* in Hopkins and Clay, 1952 as its generic identity was unknown. Recently Mr. R. H. Stranger has collected some Mallophaga from two specimens of *Dacelo gigas* at two localities near Perth, W. Australia; these have been compared with the sketches of a male and female *Nirmus bracteatus* in the Nitzsch manuscript and there is little doubt that they are this species. One of the reasons it was difficult to place *bracteatus* in the Check List was the possibility that it might be a straggler from another host, being unlike any species known from the Aleoimididae. However, in addition to the original record and the specimens collected by Mr. Stranger, there are two separate records from the type host amongst the material in the British Museum (N.H.) collections; one female from Queensland and two males and two females from New South Wales collected in 1933 by N.J.B. Plomley. There seems little doubt therefore that *bracteatus* is established on *Dacelo gigas*.

It remains to discuss the affinities of this species and to find a suitable generic position for it. In the following characters it resembles some species of *Brueelia*; in general habitus some of the stouter species; the head carinae are similar, although the ventral carinae at the points of attachment of the pulvini are not typical (Clay, 1951: 188); the thorax and tergal aspects of the abdomen are similar to some of the Corvidae-infesting species; the female genital region is typical of *Brueelia*, having small spiniform setae on the vulva and a group of setae each side arising from a tubercle-like part of the last segment; the male ano-genital opening is dorsal. The male genitalia resemble the most usual type found in the *Degeeriella*-complex, especially in the absence of a head to the paramere articulating with the basal apodeme, a condition also found in *Penenirmus*. However, there is variation in the type of male genitalia found in the *Degeeriella*-complex, some of which have articulating heads to the parameres (see Clay, 1958). This species also resembles members of the *Degeeriella*-complex in having long ocular setae and 2 + 2 long temporal marginal setae, not 1 + 1 as in *Brueelia*.

Tendeiro erected the new genus *Emersoniella* for *halcyonis* parasitic on *Halcyon hombroni* from Masawan, Philippine Islands. *N. bracteatus*